

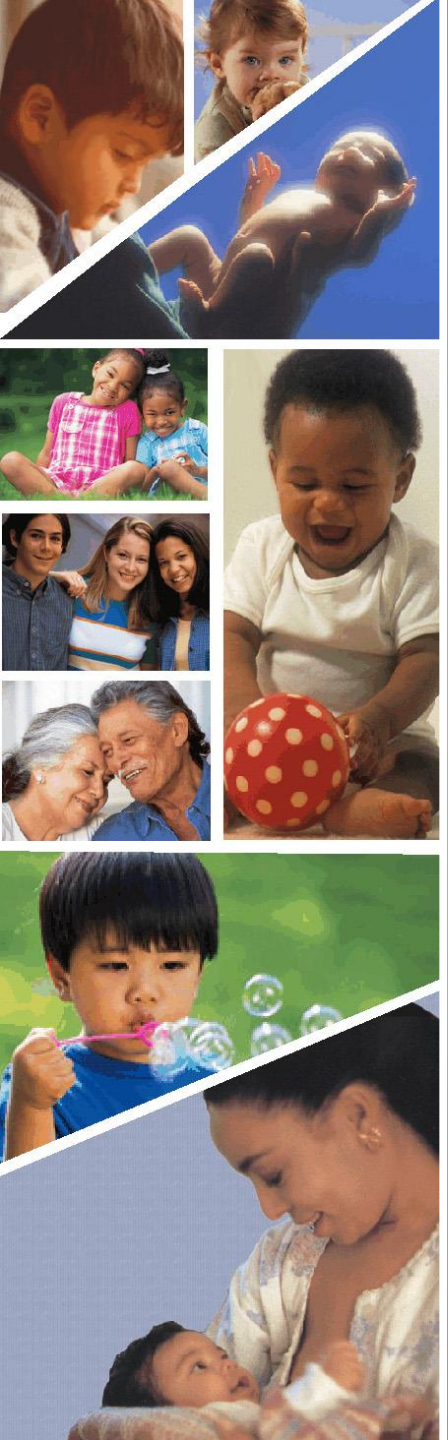
# Texas Department of State Health Services

## Texas Perinatal and Acute Hepatitis B Epidemiology Overview

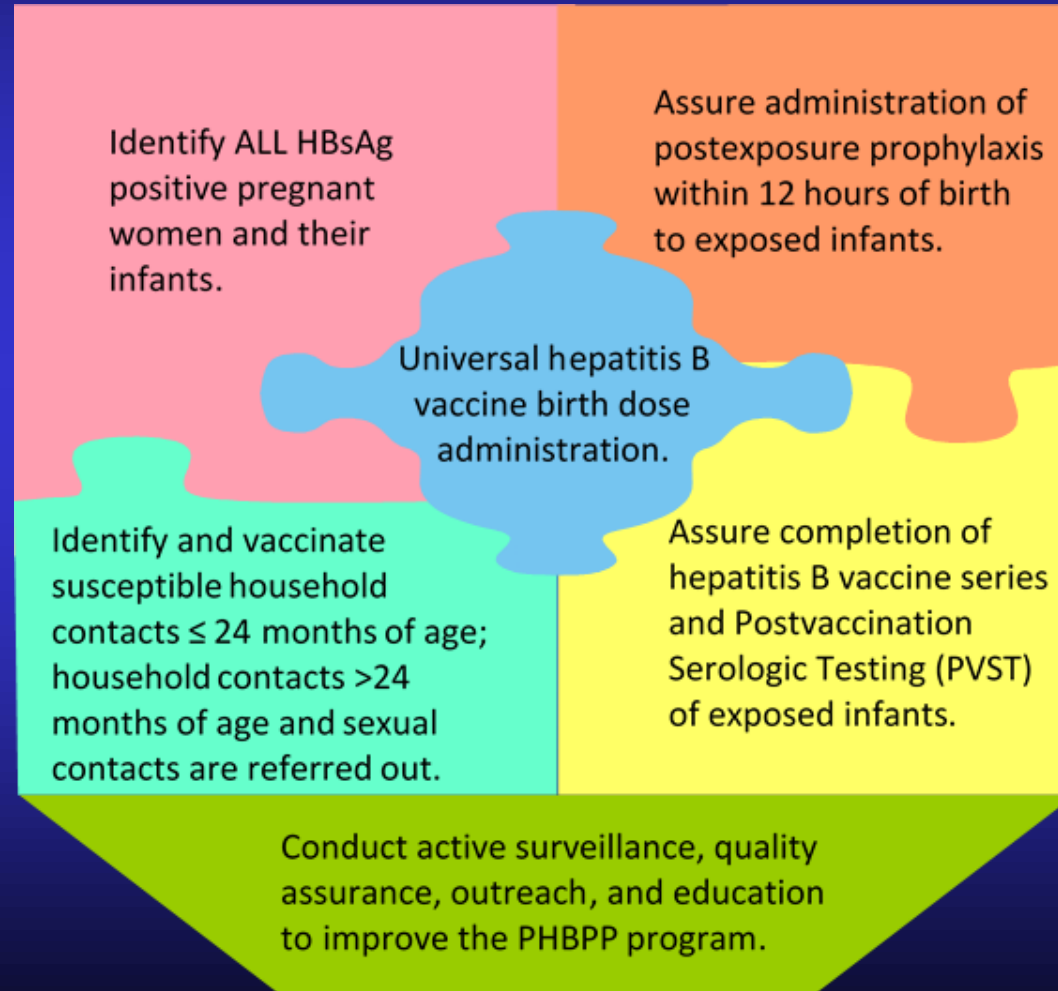
Rachel Wiseman, MPH  
Lucille Palenapa, MS

# Outline

- PHBPP objectives
  - Overview
  - Progress
  - Summary



# Six Main Objectives of the PHBPP



# ACIP Recommendations to Prevent PHB Transmission

Post-exposure prophylaxis with HBIG and hep B vaccine dose#1 w/in 12 hours of birth to all infants born to HBsAg-positive women

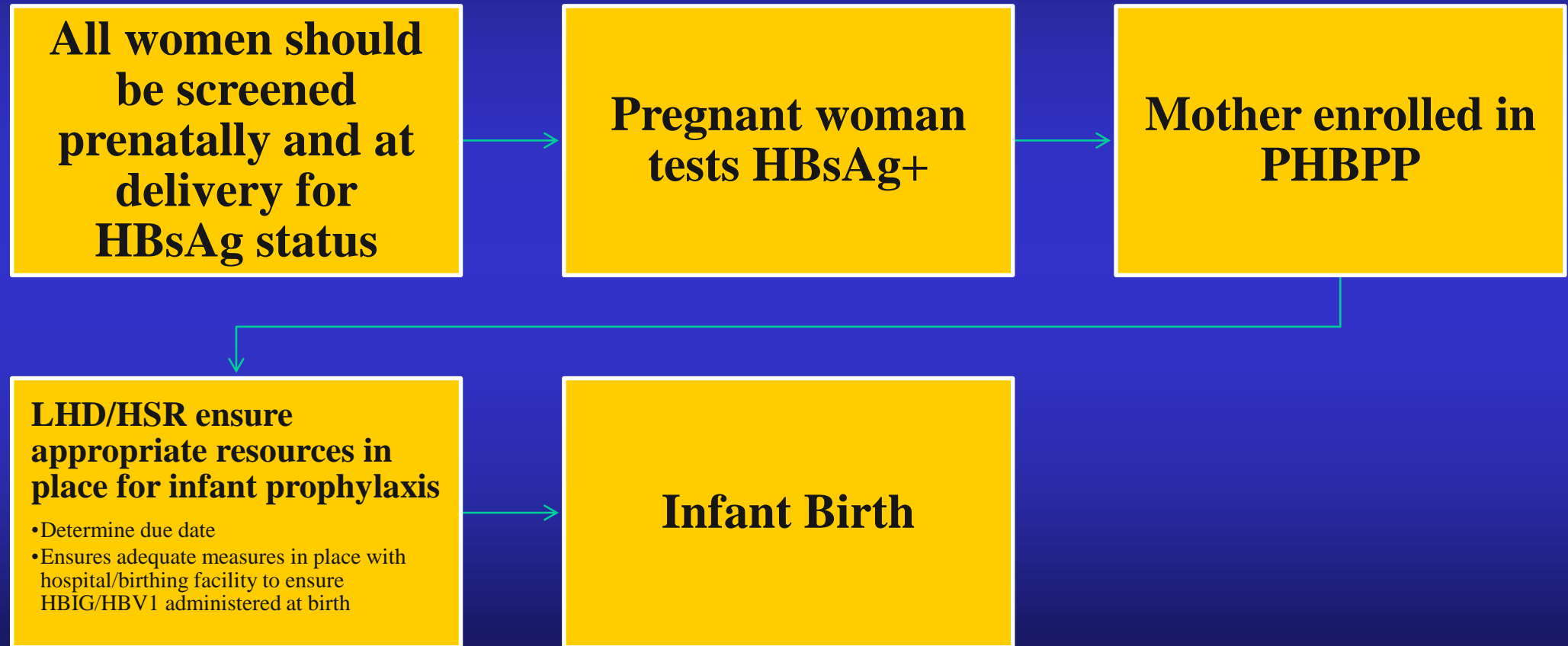


Completion of hepatitis B vaccine series & PVST



85%-95% effective in preventing perinatal HBV infection

# Lead up to Infant Birth



# PHBPP Follow-up of Infant

## -@ Birth

- HBIG and HBV1 w/in 12 hours (but no later than 7 days)

## -@1-2 months old

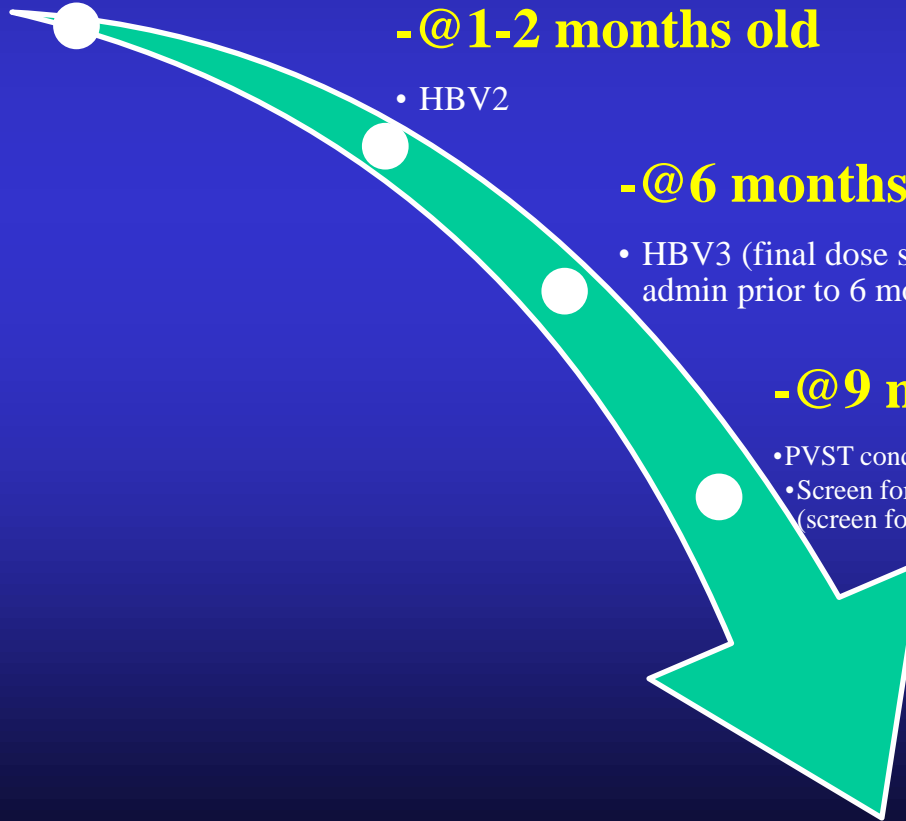
- HBV2

## -@6 months old

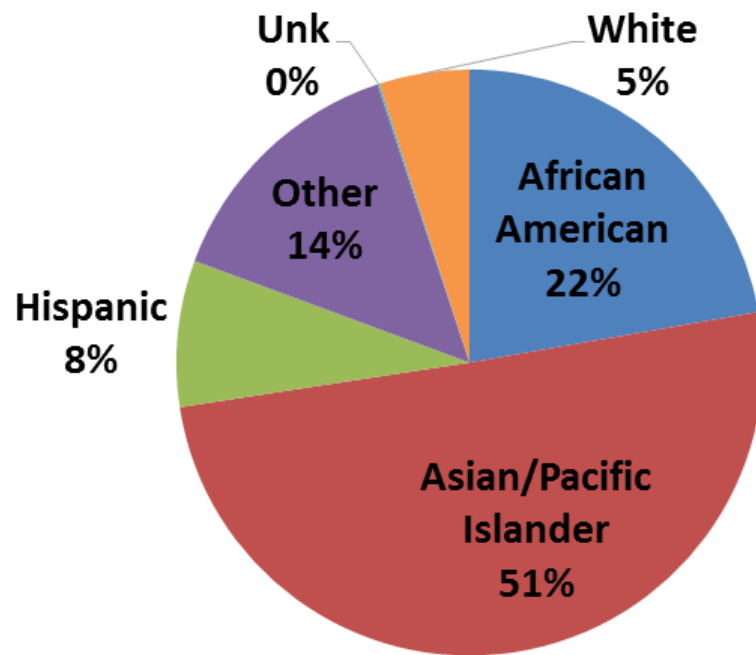
- HBV3 (final dose should not be admin prior to 6 mos)

## -@9 months old

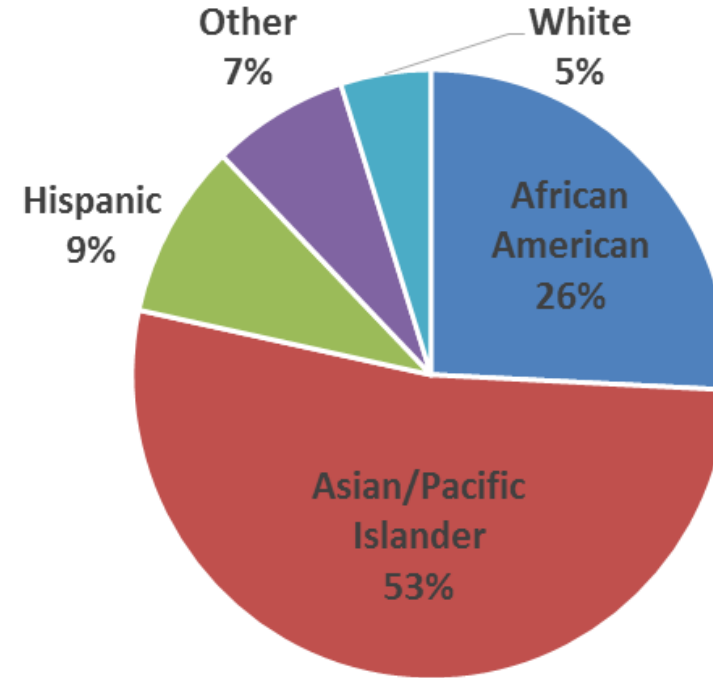
- PVST conducted
- Screen for HBsAg (screen for disease) and anti-HBs (screen for adequate protection against disease)



# Race of Mother's Enrolled in PHBPP, 2014 vs 2015

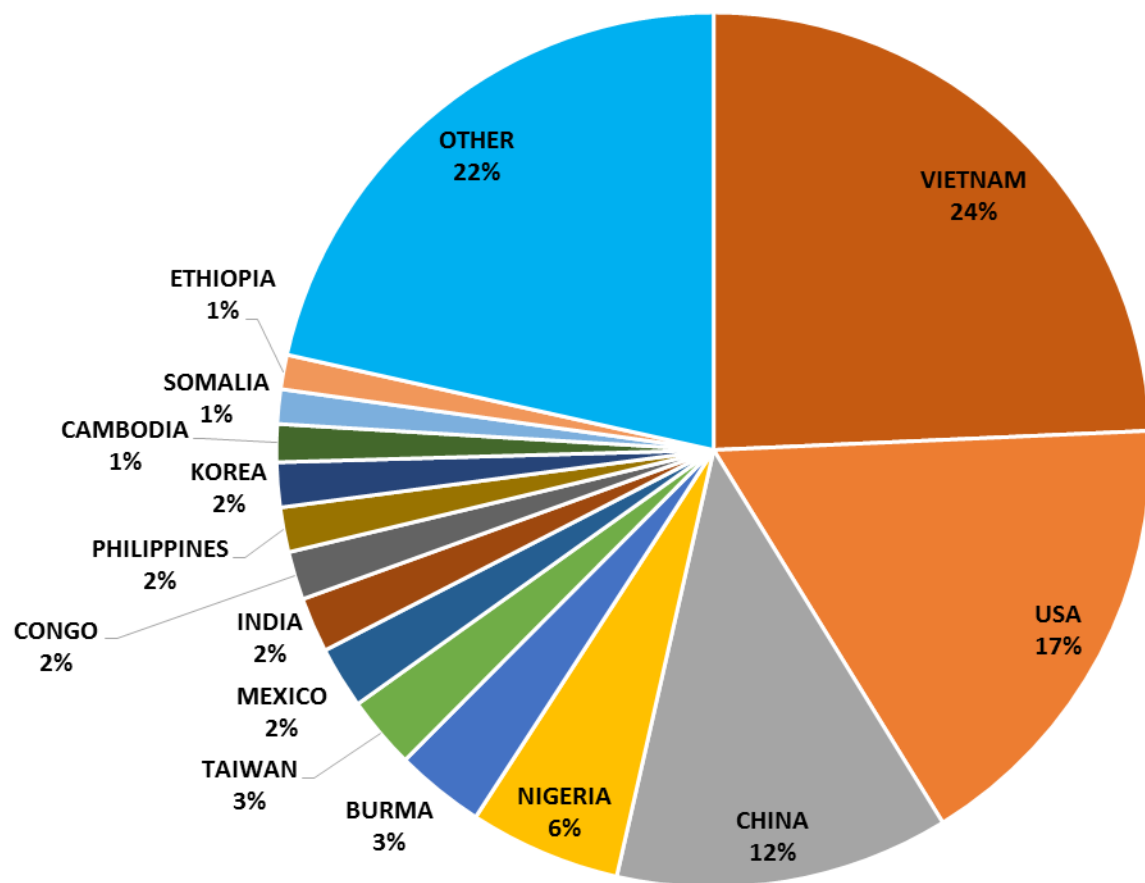


**2014**



**2015**

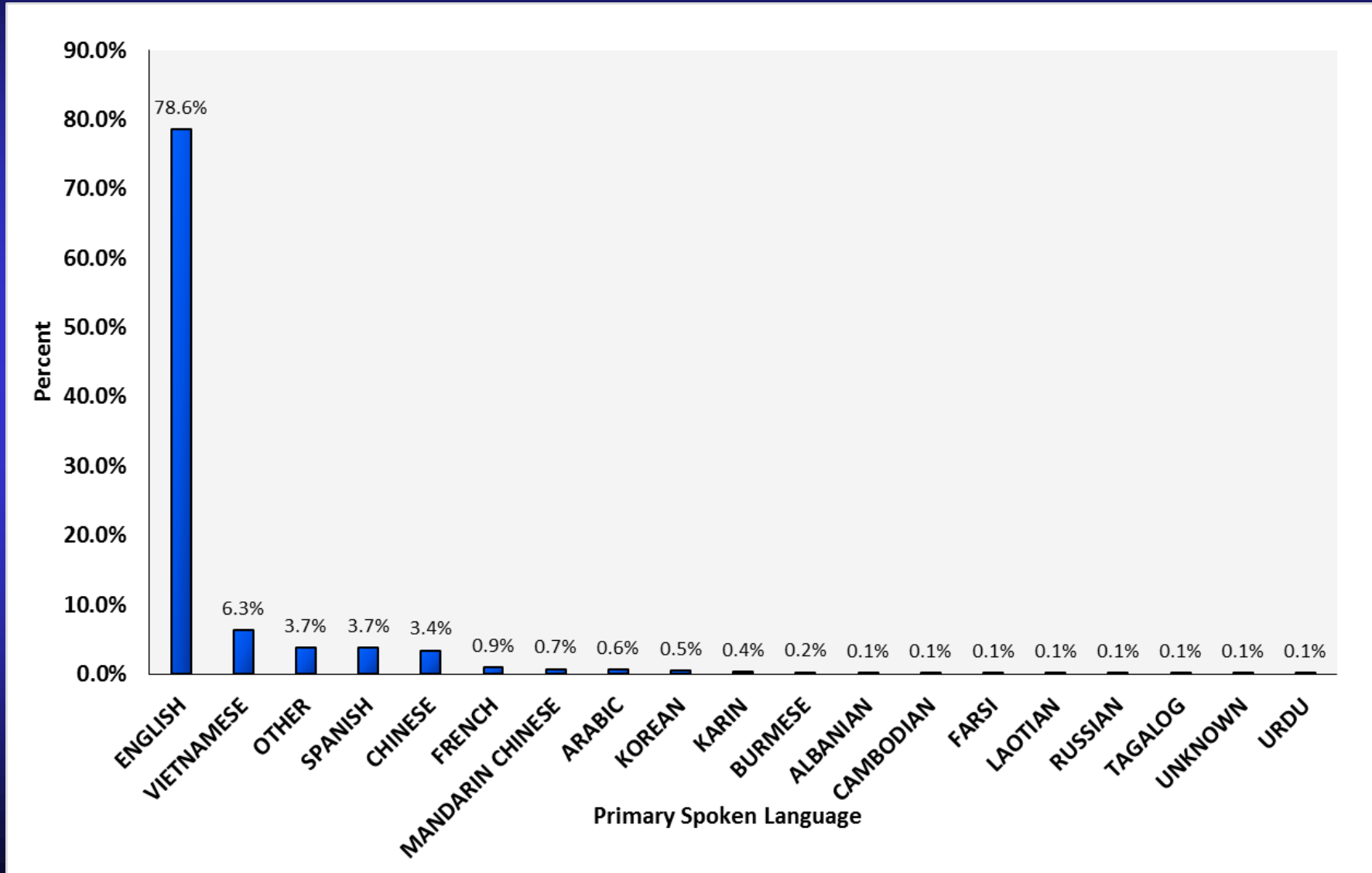
# Mother's Country of Birth, 2014



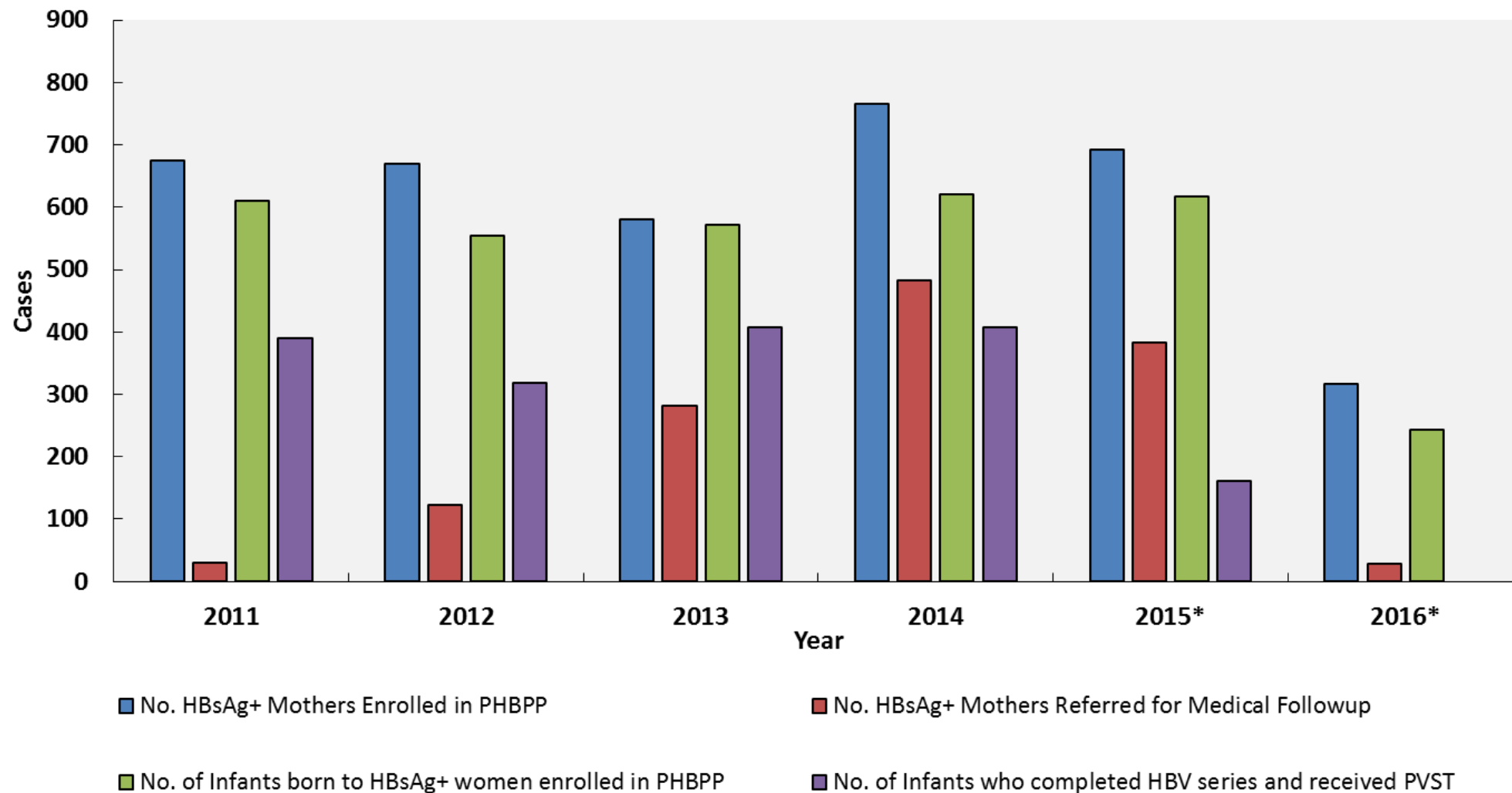
Mother's Country of Birth	% of Cases
VIETNAM	24%
OTHER	22%
USA	17%
CHINA	12%
NIGERIA	6%
BURMA	3%
TAIWAN	3%
MEXICO	2%
INDIA	2%
CONGO	2%
PHILIPPINES	2%
KOREA	2%
CAMBODIA	1%
SOMALIA	1%
ETHIOPIA	1%



# Mother's Primary Spoken Language, 2014

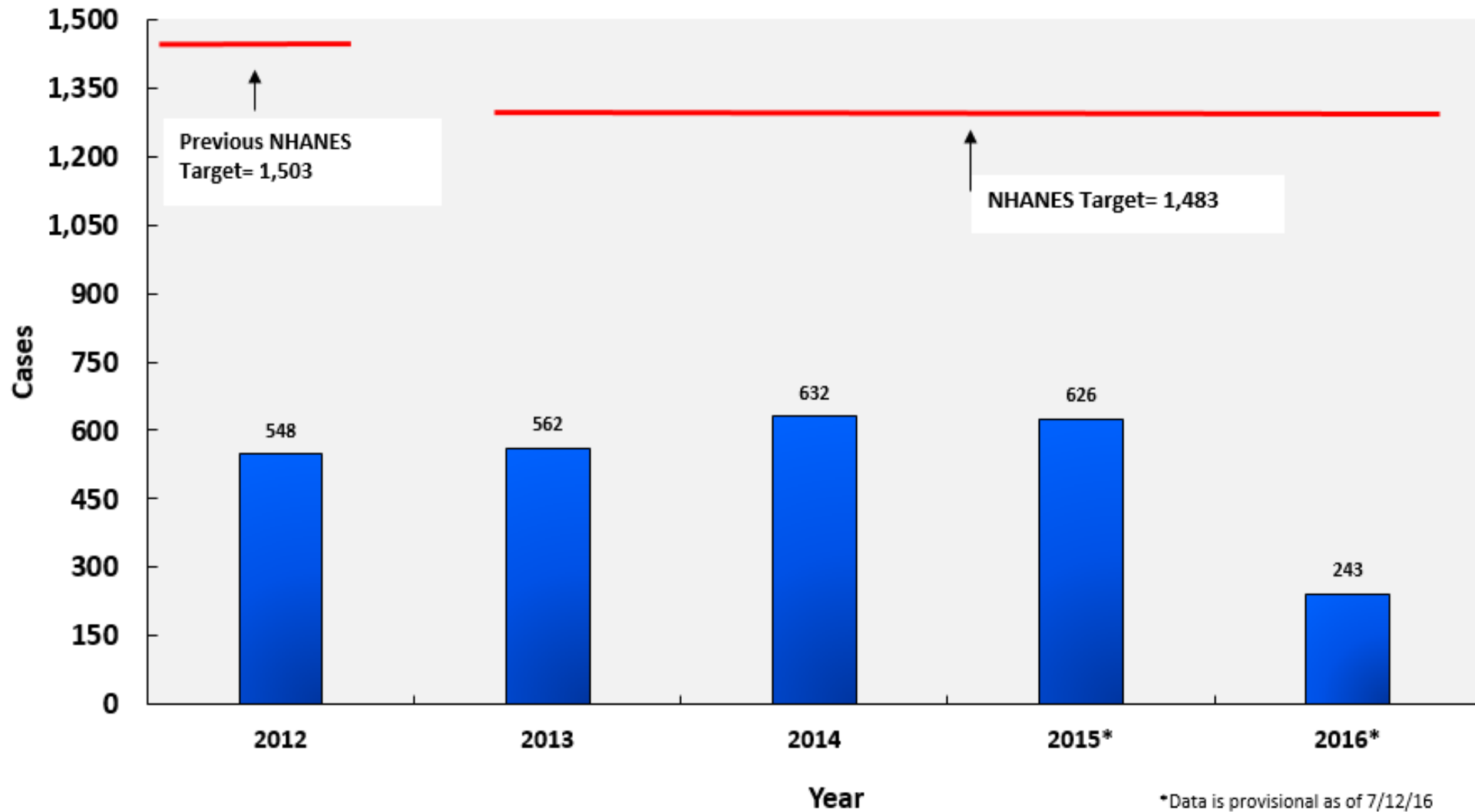


## PHBPP Progress in Meeting Key Program Objectives, 2011-2016\*

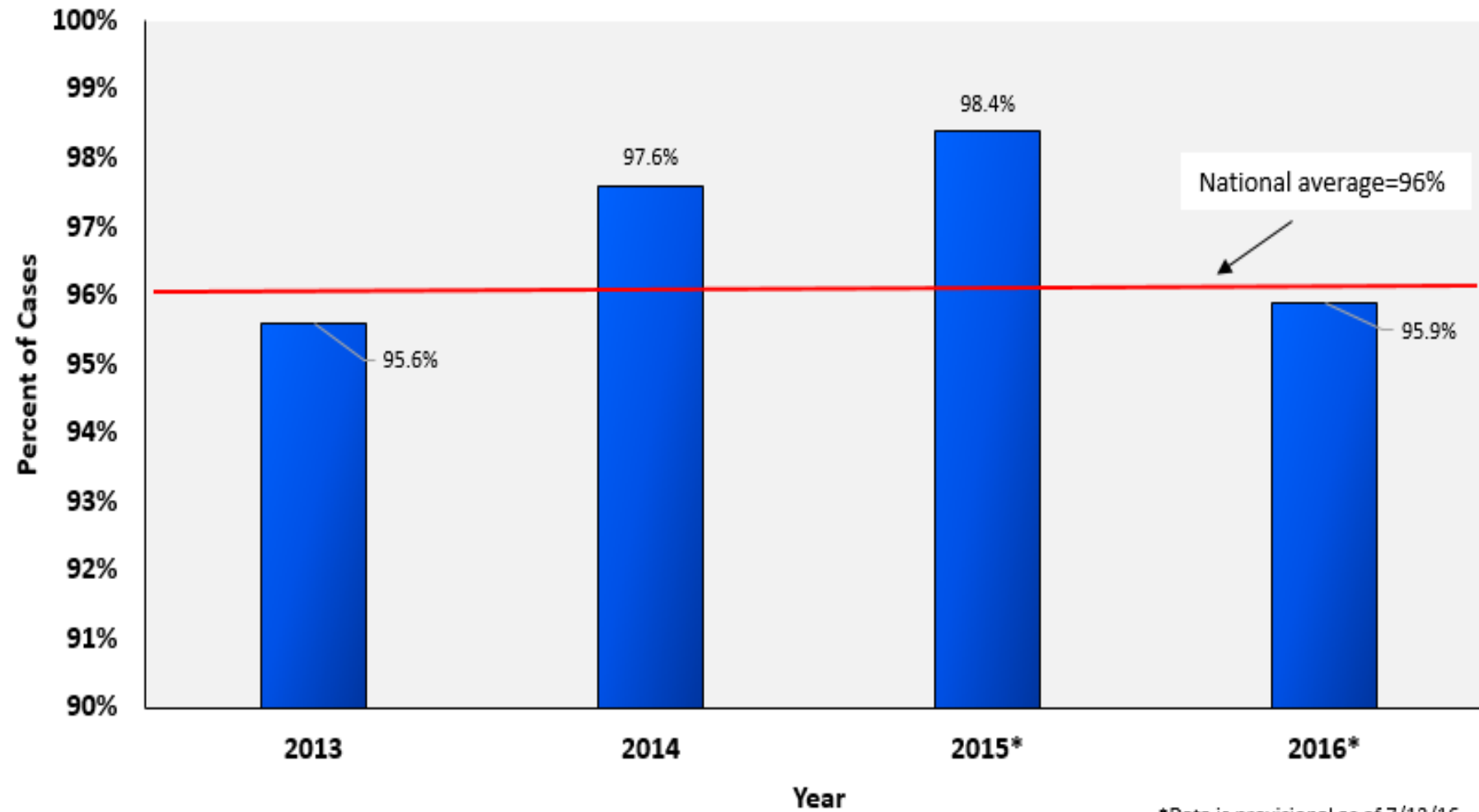


\*Data is provisional as of 7/12/16

## Progress in Meeting NHANES PE, No. of Identified Births to HBsAg+ Women, 2012-2016\*

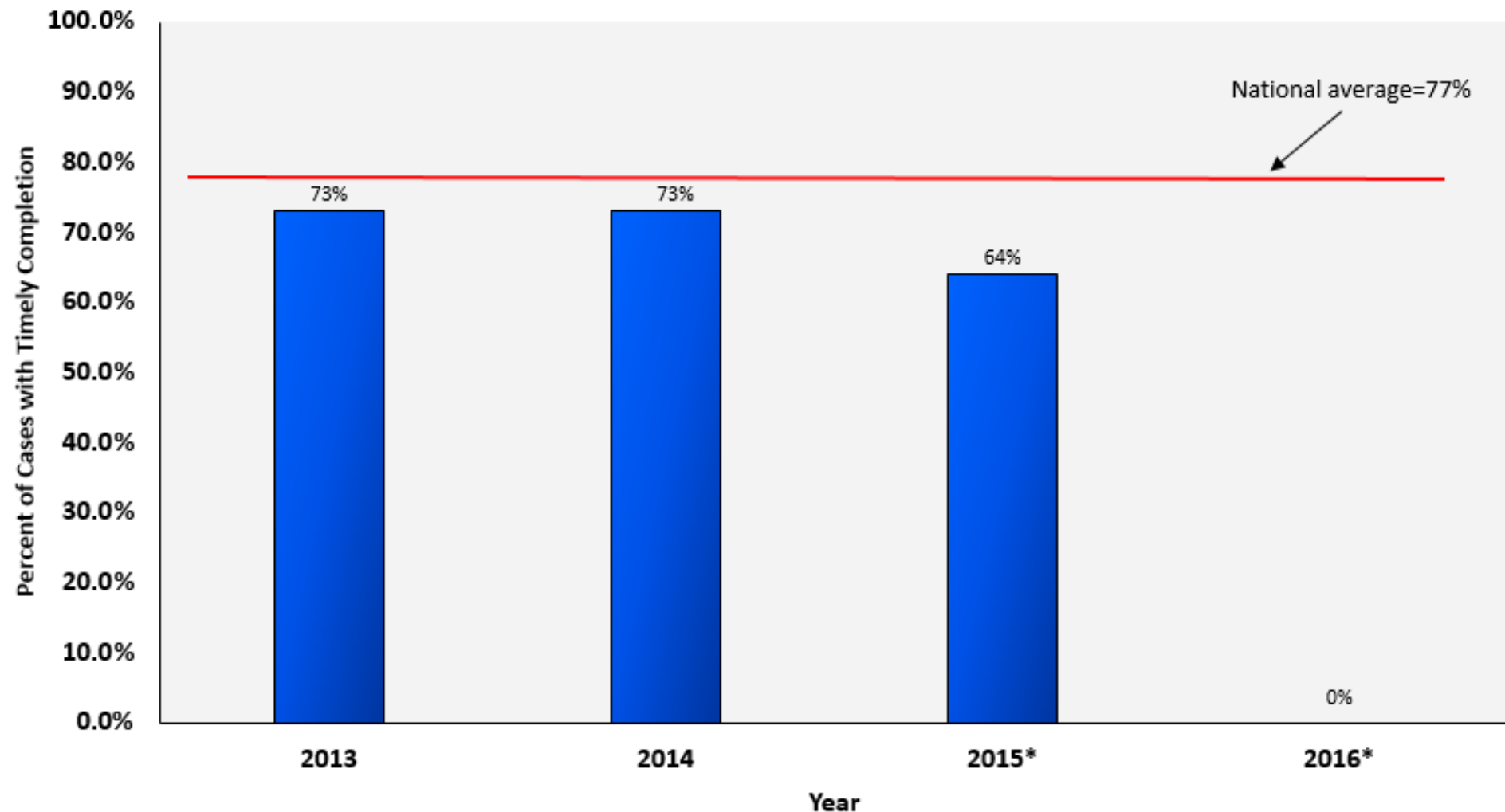


## Progress in Completing HBIG and HBV1 w/in 1 Calendar Day of Birth, 2013-2016\*



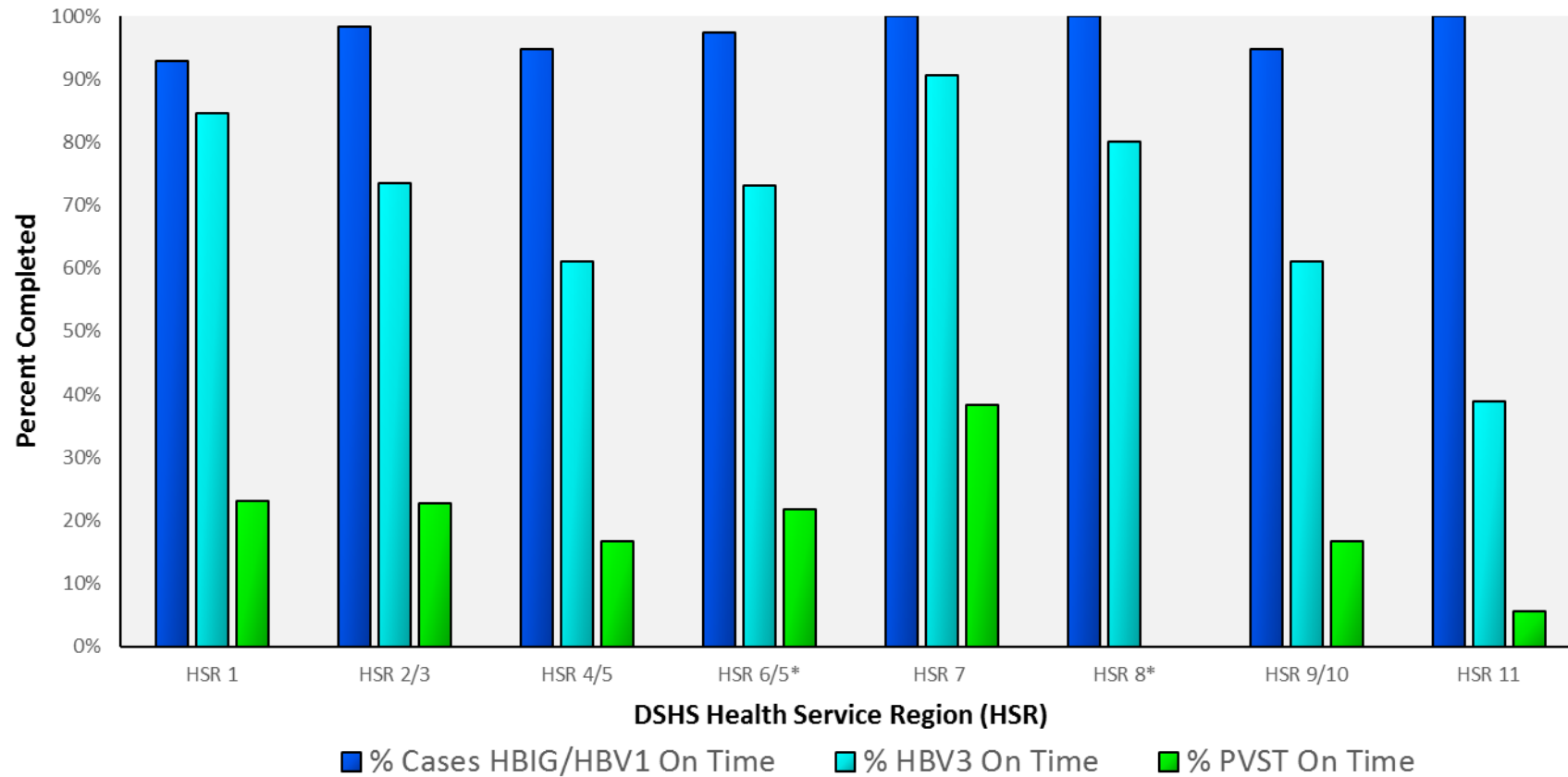
\*Data is provisional as of 7/12/16

## Progress in Timely Completion of HBIG and HBV1 w/in 1 Calendar Day of Birth and Completed a 3-dose HBV Series by 8 months of Age



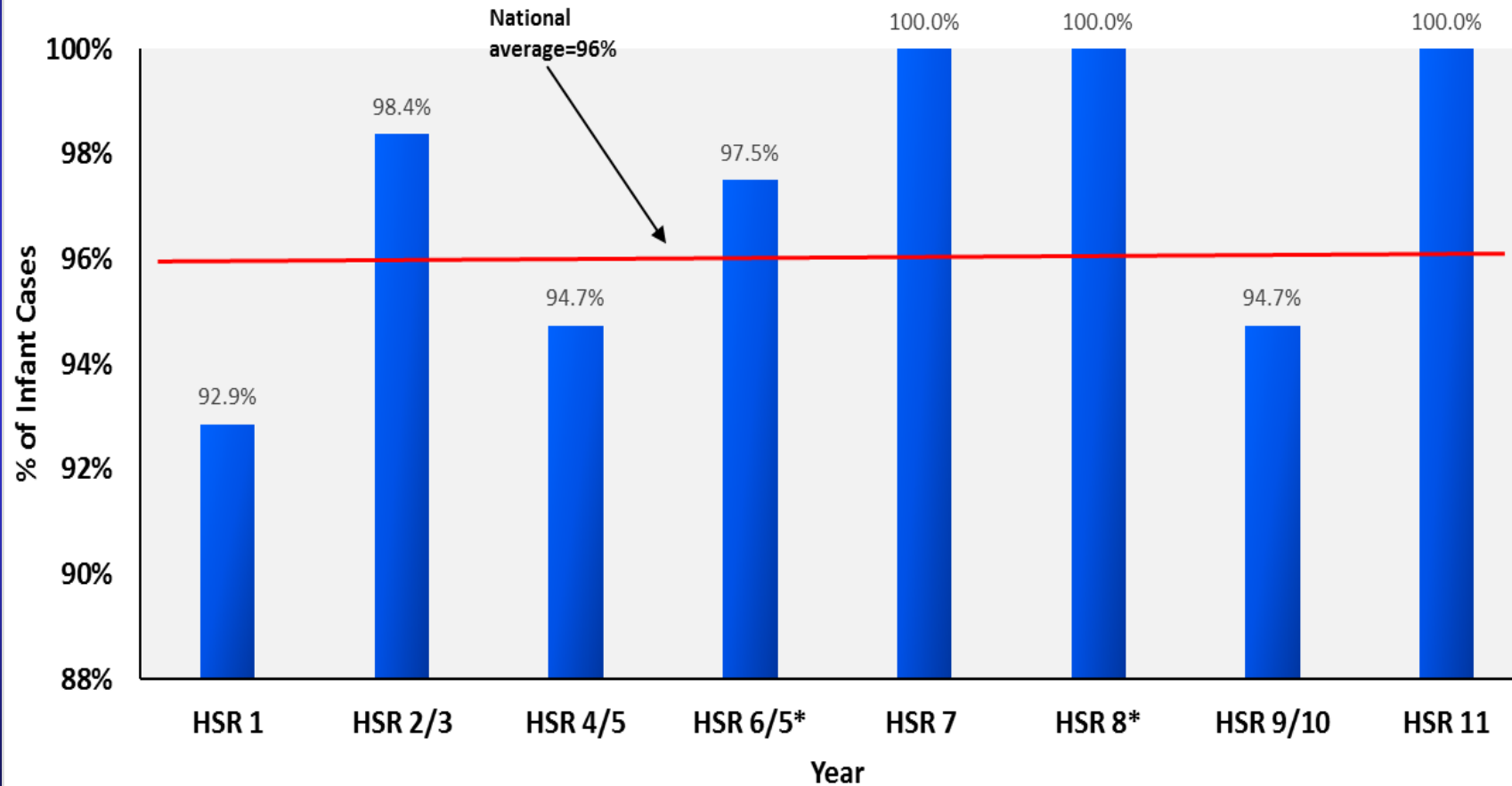
\*Data is provisional as of 7/12/16

## Progress in Meeting Select PHBPP Performance Measures by DSHS HSR, 2014



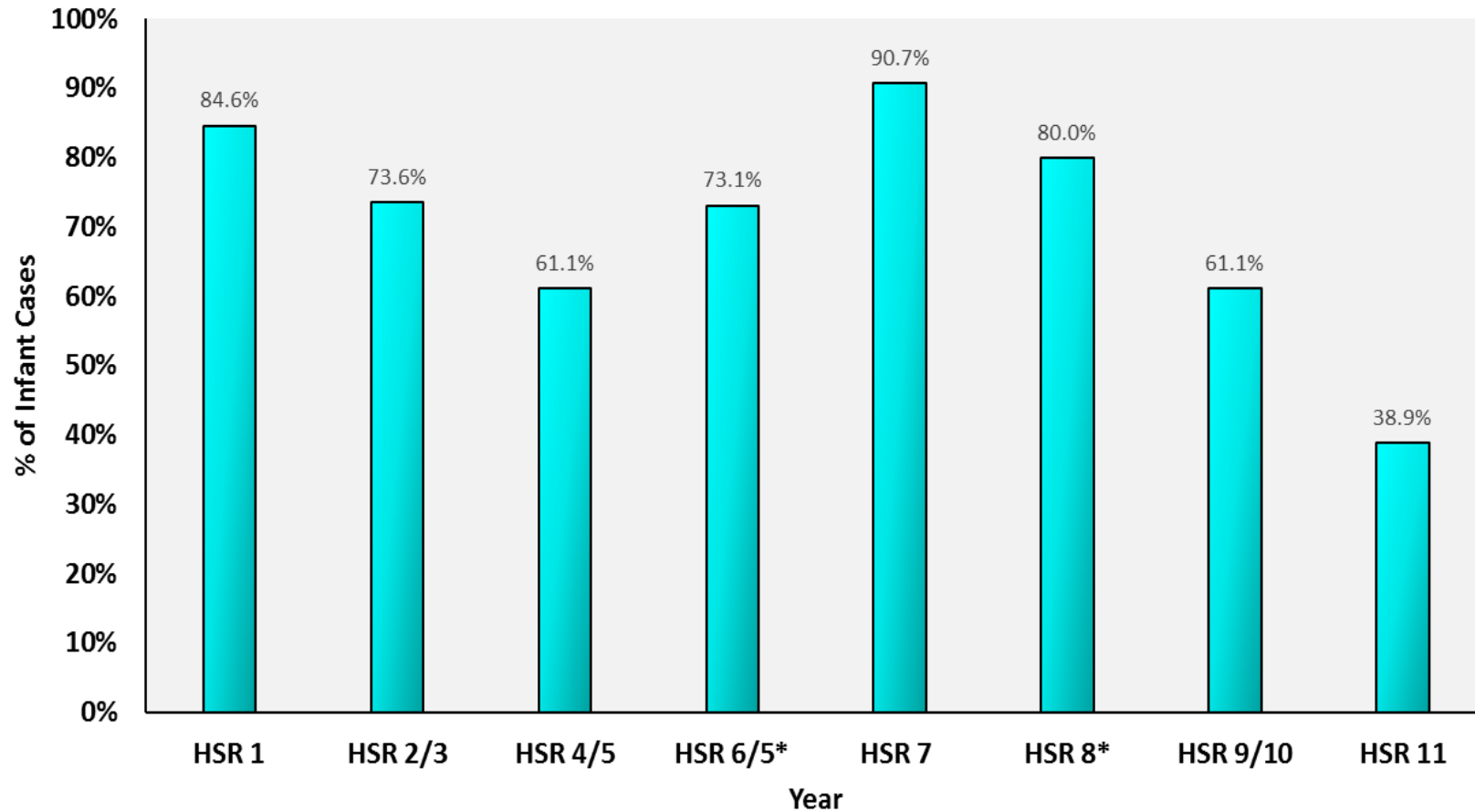
\*Excluding City of Houston and City of San Antonio

# Percent of Infants Receiving HBIG/HBV1 On Time by DSHS Health Service Region, 2014



\*Excluding City of Houston and City of San Antonio

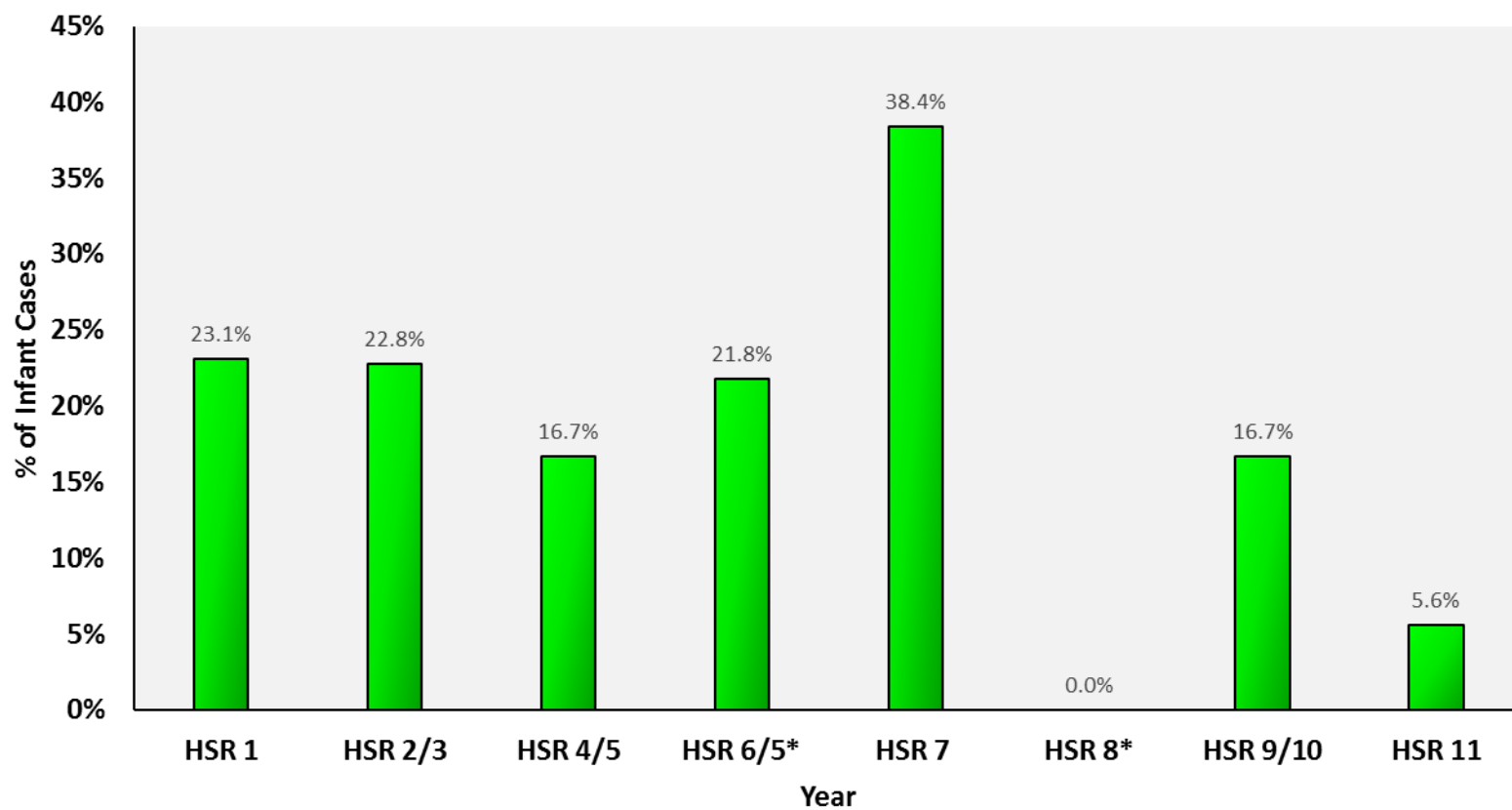
## Percent of Infants Receiving HBV3 On Time by DSHS Health Service Region, 2014



\*Excluding City of Houston and City of San Antonio

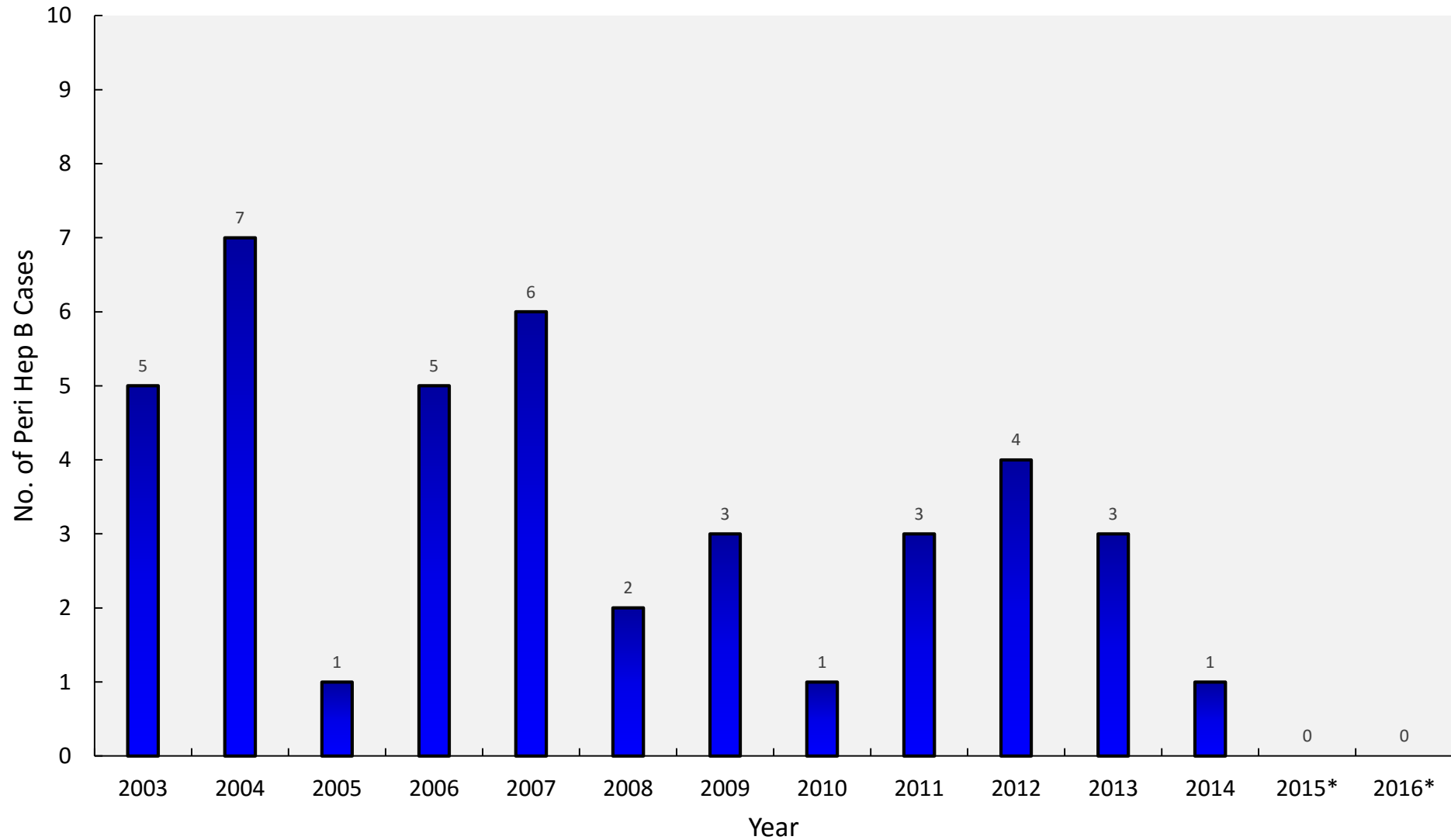


## Percent of Infants Receiving PVST On Time by DSHS Health Service Region, 2014



\*Excluding City of Houston and City of San Antonio

## No. of Infants who Contracted Hepatitis B Perinatally in Texas, 2003-2016\*



\*Data is provisional as of 7/12/16

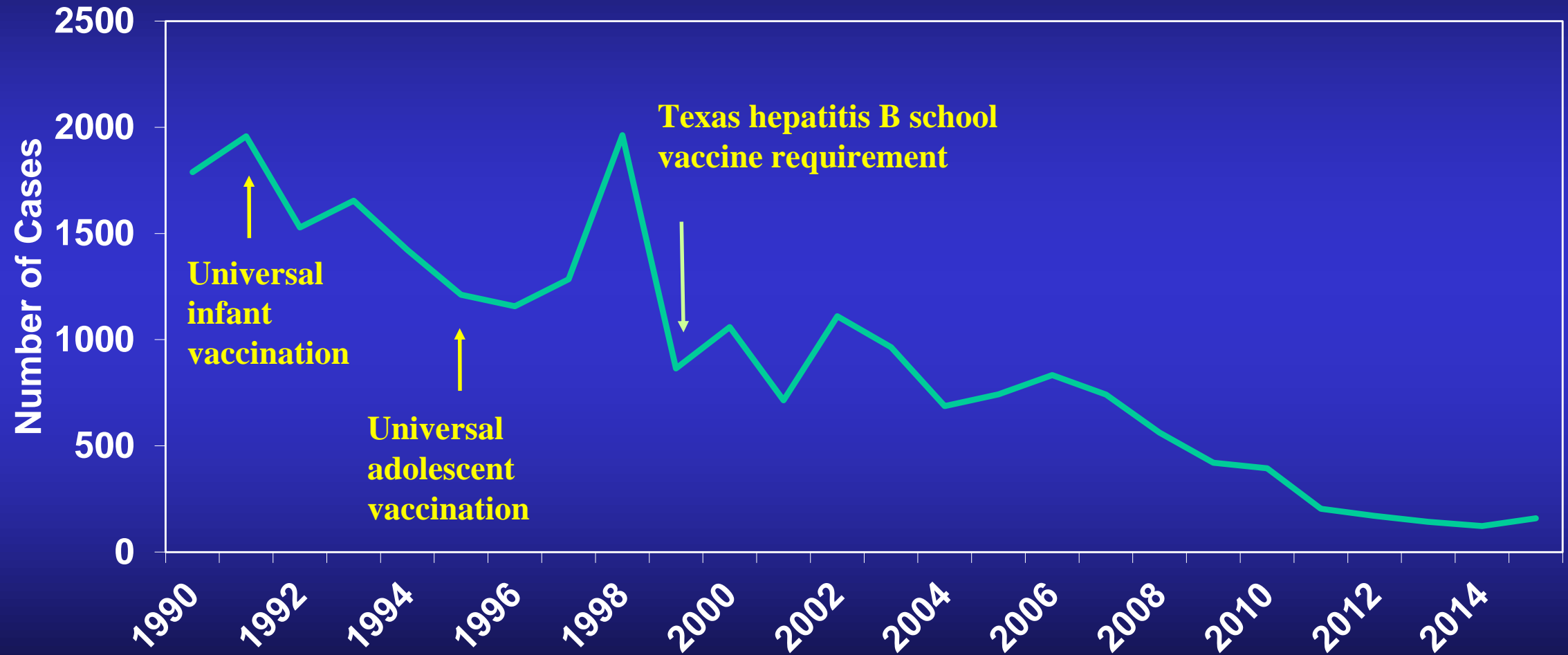
# Perinatal Hepatitis B Summary

- Need more collaboration with other stakeholders to ensure awareness of PHBPP
- Successes
- Challenges

# *Acute Hepatitis B: Content Overview*

- Recent trends in acute hepatitis B
- Overview of acute hepatitis B surveillance processes and how they impact perinatal case management
- Describe recent trends in the incidence of perinatal hepatitis B
- Perinatal hepatitis B case management

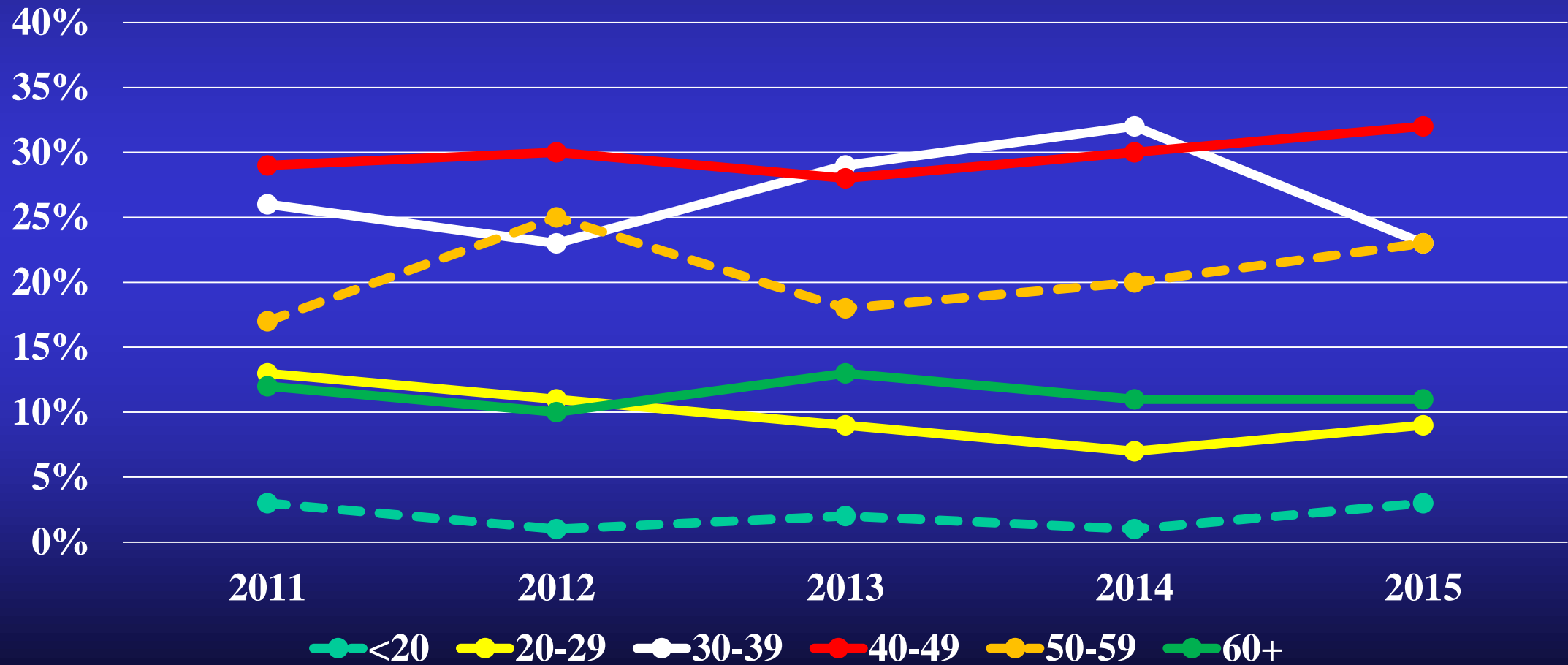
# Reported Cases of Acute Hepatitis B in Texas, 1990-2015



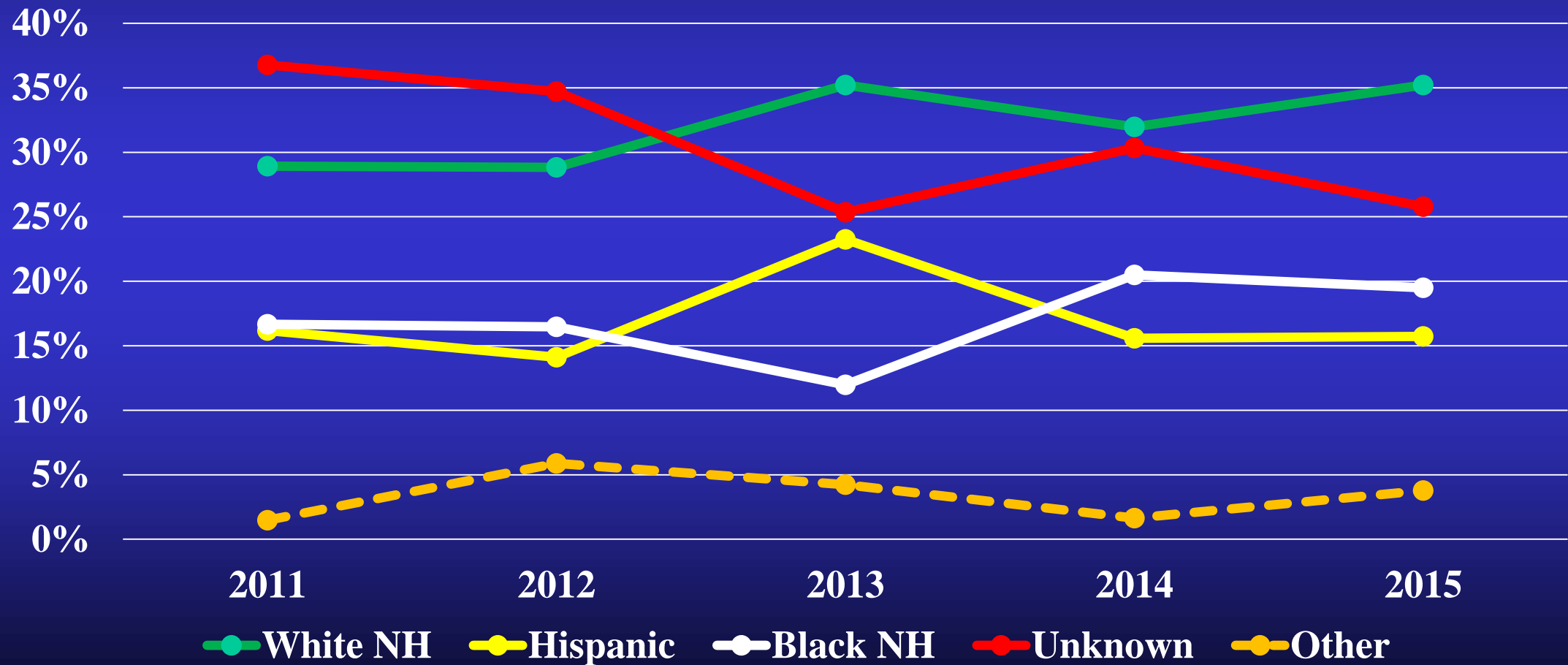
# Overview of Acute Hepatitis B Cases, 2011-2015

	2011	2012	2013	2014	2015
Case count	204	170	142	122	159
Female	76 (37%)	49 (29%)	54 (38%)	44 (36%)	46 (29%)
Hospitalized	62 (30%)	60 (35%)	68 (48%)	74 (61%)	80 (50%)
Vaccinated	2 (1%)	4 (2%)	4 (3%)	6 (5%)	8 (5%)
Pregnant	1	1	0	0	1

# Acute Hepatitis B Cases by Age Group, 2011-2015



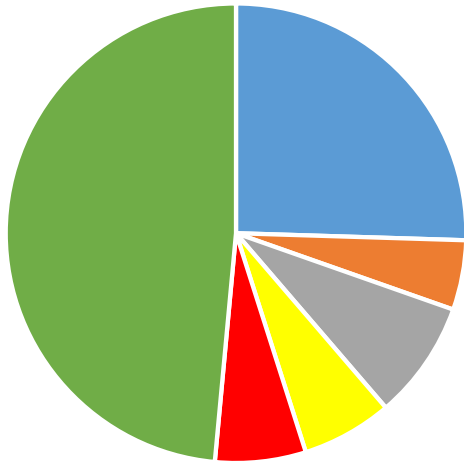
# Acute Hepatitis B Cases by Race/Ethnicity, 2011-2015



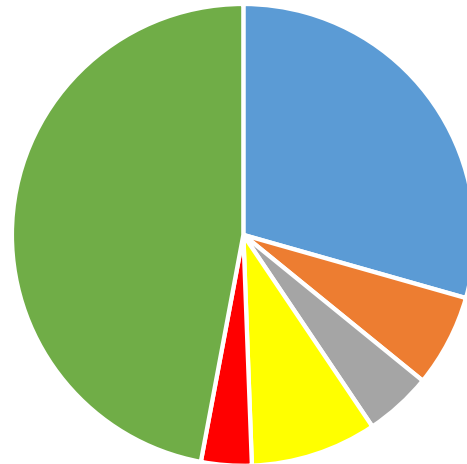


# Acute Hepatitis B Cases by County, 2011-2015

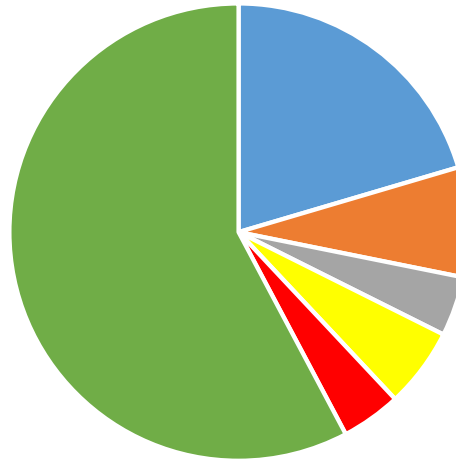
2011



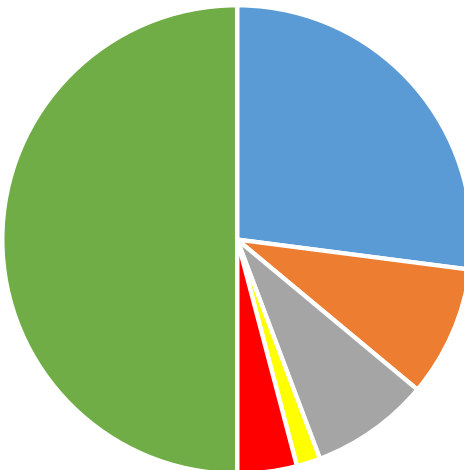
2012



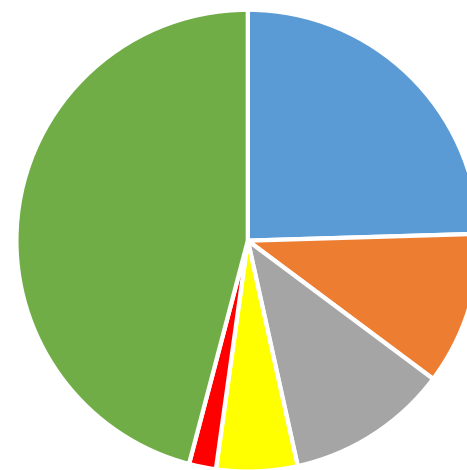
2013



2014



2015



# Risk Factors among Acute Hepatitis B Cases, 2011-2015\*

	2011	2012	2013	2014	2015
Known contact w/ hep B pt	11 (5%)	3 (2%)	9 (6%)	8 (7%)	16 (10%)
Recent healthcare	32 (16%)	16 (9%)	19 (13%)	25 (20%)	24 (15%)
Drug use, jail, tattoo/piercing	23 (11%)	11 (6%)	18 (13%)	21 (15%)	34 (21%)
>1 sex partner	21 (10%)	12 (7%)	17 (12%)	13 (11%)	19 (12%)

\*Patients may report more than one risk factor. High percentage of missing data.

# Acute Hepatitis B Case Definition

- Hepatitis B IgM antibody or surface antigen positive AND
- Not known to be chronically infected AND
  - Acute onset of symptoms (fatigue, diarrhea, nausea, vomiting, abdominal pain, headache, malaise) OR
  - Jaundice OR
  - Elevated liver function tests (ALT>100 IU/L)
- OR
- Documentation of conversion from a negative sAg result to a positive HBV marker (DNA, genotype, sAg, or IgM)

# Challenges with Acute Hepatitis B Surveillance

## Overcounting Cases

- Chronic carriers in liver failure: symptomatic, elevated LFTs
- Chronic carriers may not know or disclose status to public health
- No prior lab results known to public health, so chronic status not identified

## Undercounting Cases

- Asymptomatic infection
- Underreporting by providers
- Cases may not seek medical care
- Serial testing unlikely, so conversions re not captured
- High volume of lab results for follow up

# Volume of Electronically Reported Lab Results

2014

- 80,324 hepatitis B lab results
  - 16,987 surface antigen
  - 2,777 IgM antibody

2015

- 103,344 hepatitis B lab results
  - 20,442 surface antigen
  - 5,100 IgM antibody

\*Based on specimen collection date. Not unique patients.

# sAg Results → Perinatal Case Management

	2014	2015
Surface Antigen Results	16,987	20,442
Females	8,138 (48%)	9,583 (47%)
Females, age 13-55	6,139 (36%)	6,983 (34%)
Pregnancy noted on lab result	310 (5%)	302 (4%)
Total number of labs needing f/u to determine pregnancy	5,829 (34%)	6,681 (33%)

# Summary

- Acute hepatitis B decreasing, possibly reaching a plateau
- Increasing volume of hepatitis lab results make identifying pregnant women with hepatitis B challenging
- Integration between hepatitis B surveillance and perinatal prevention program has increased identification of moms to enroll

# Thank you

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Texas Department of State Health Services:  
2016 Texas Perinatal Hepatitis B Summit

July 19-20, 2016

**Thank you!**